

**IN THE CLAIMS:**

1 1-25. (CANCELLED)

1 26. (PREVIOUSLY PRESENTED) A method for operating a router, comprising:

2 receiving a first message from a client, the first message directed to a server to  
3 request a traffic flow from the server to the client;

4 determining a sequence number of the first message;

5 reading a second message from the server in order to determine if the message is a  
6 response to the first message, and determining if the second message is a response to the  
7 first message by checking a sequence number in the second message;

8 reading from the first message and the second message at least one parameter of  
9 the traffic flow, the traffic flow requested by the client for the server to transmit to the  
10 client;

11 writing the at least one parameter into a resource reservation request message  
12 (RSVP request message);

13 transmitting, in response to the second message, the RSVP request message to the  
14 client, the RSVP message establishing a path to the client;

15 receiving a RSVP reply message from the client, the RSVP reply message reserv-  
16 ing resources for the requested traffic flow;

17 receiving a data message of the traffic flow from the server; and

18 transmitting the data message of the traffic flow with a resource reservation indi-  
19 cia in the data message, the resource reservation indicia to direct the data message to  
20 travel along the reserved resources.

1 27. (CURRENTLY AMENDED) The method of claim ~~22~~ 26, further comprising:

2 using a Resource reSerVation (RSVP) protocol to learn the contents of messages  
3 received by the router.

1 28. (CURRENTLY AMENDED) The method of claim ~~2226~~, further comprising:  
2 connecting the router one hop away from the server;  
3 ~~receiving first messages by the router, the first messages originating from com-~~  
4 ~~puters connected to the Internet and directed to the server; and~~  
5 ~~receiving second messages by the router, the second messages originating from~~  
6 ~~the server and directed to clients connected to the Internet.~~

1 29-32. (CANCELLED)

1 33. (PREVIOUSLY PRESENTED) A router, comprising:  
2 means for receiving a first message from a client, the first message directed to a  
3 server to request a traffic flow from the server to the client;  
4 means for determining a sequence number of the first message;  
5 means for reading a second message from the server in order to determine if the  
6 message is a response to the first message, and determining if the second message is a  
7 response to the first message by checking a sequence number in the second message;  
8 means for reading from the first message and the second message at least one pa-  
9 rameter of the traffic flow, the traffic flow requested by the client for the server to trans-  
10 mit to the client;  
11 means for writing the at least one parameter into a resource reservation request  
12 message (RSVP request message);  
13 means for transmitting, in response to the message the RSVP request message to  
14 the client, the RSVP message establishing a path to the client;  
15 means for receiving a RSVP reply message from the client, the RSVP reply mes-  
16 sage reserving resources for the requested traffic flow;  
17 means for receiving a data message of the traffic flow from the server; and  
18 means for transmitting the data message of the traffic flow with a resource reser-  
19 vation indicia in the data message, the resource reservation indicia to direct the data mes-  
20 sage to travel along the reserved resources.

21 34. (CURRENTLY AMENDED) The router of claim 2933, further comprising:  
22 means for using a Resource reSerVation (RSVP) protocol to learn the contents of  
23 messages received by the router.

1 35. (CURRENTLY AMENDED) The ~~router method~~ of claim 2933, further comprising:  
2 means for connecting the router one hop away from the server;  
3 ~~means for receiving first messages by the router, the first messages originating~~  
4 ~~from computers connected to the Internet and directed to the server; and~~  
5 ~~means for receiving second messages by the router, the second messages originat-~~  
6 ~~ing from the server and directed to clients connected to the Internet.~~

1 36. (CURRENTLY AMENDED) A method, ~~for operating a router;~~ comprising:  
2 receiving a first message from a client, the first message directed to a server to re-  
3 quest a traffic flow stream from the server to the client;  
4 determining a sequence number of the first message;  
5 receiving a second message from the server;  
6 checking a sequence number in the second message to determine, and determining  
7 that the second message is a response to the first message;  
8 reading characteristics from the first message and the second message to identify  
9 the stream from the server to the client;  
10 snooping the second message to determine a bandwidth of the stream; and  
11 reserving resources within a computer network on behalf of the server for alloca-  
12 tion to the stream.

1 37. (CANCELLED)

1 38. (PREVIOUSLY PRESENTED) The method of claim 36, further comprising:

2 defining the first message as a Real Time Streaming Protocol (RTSP) request  
3 message.

1 39. (PREVIOUSLY PRESENTED) The method of claim 36, further comprising:  
2 defining the second message as an RTSP response message.

1 40. (CURRENTLY AMENDED) A router, comprising:  
2 means for receiving a first message from a client, the first message directed to a  
3 server to request a traffic flow stream from the server to the client;  
4 means for determining a sequence number of the first message;  
5 means for receiving a second message from the server;  
6 means for checking a sequence number in the second message to determine, and  
7 ~~determining~~ that the second message is a response to the first message;  
8 means for reading characteristics from the first message and the second message  
9 to identify the stream from the server to the client;  
10 means for snooping the second message to determine a bandwidth of the stream;  
11 and  
12 means for reserving resources within a computer network on behalf of the server  
13 for allocation to the stream.

1 41. (CANCELLED)

1 42. (PREVIOUSLY PRESENTED) The router of claim 40, further comprising:  
2 means for defining the first message as a Real Time Streaming Protocol (RTSP)  
3 request message.

1 43. (PREVIOUSLY PRESENTED) The router of claim 40, further comprising:  
2 means for defining the second message as an RTSP response message.

1 44. (CURRENTLY AMENDED) A router, comprising:  
2 a packet frame receiver configured to receive a first message from a client, the  
3 first message directed to a server to request a traffic flow stream from the server to the  
4 client;  
5 the packet frame receiver further configured to receive a second message from the  
6 server;  
7 a traffic scheduler configured to determine a sequence number of the first mes-  
8 sage, and to check a sequence number in the second message to determine that the second  
9 message is a response to the first message, and to read characteristics from the first mes-  
10 sage and the second message to identify the stream from the server to the client;  
11 a packet classification engine ~~for~~ configured to snooping the second message to  
12 determine a bandwidth of the stream; and  
13 a resource reservation protocol (RSVP) transmitter proxy configured to reserve  
14 resources within a computer network on behalf of the server for allocation to the stream.

1 45. (CANCELLED)

1 46. (PREVIOUSLY PRESENTED) The router of claim 44, further comprising:  
2 the first message is further defined as a Real Time Streaming Protocol (RTSP)  
3 request message.

1 47. (PREVIOUSLY PRESENTED) The router of claim 44, further comprising:  
2 the second message is further defined as an RTSP response message.

1 48-49. (CANCELLED)

1 50. (NEW) Software encoded in one or more computer readable media and when exe-  
2 cuted operable to:

3           receive a first message from a client, the first message directed to a server to re-  
4   quest a traffic flow stream from the server to the client;  
5           determine a sequence number of the first message;  
6           receive a second message from the server;  
7           determine that the second message is a response to the first message by compari-  
8   son of a sequence number in the second message to the sequence number of the first mes-  
9   sage;  
10          read characteristics from the first message and the second message to identify the  
11   stream from the server to the client;  
12          determine a bandwidth of the stream; and  
13          reserve resources within a computer network on behalf of the server for the  
14   stream.

1   51. (NEW) The router of claim 44, wherein the RSVP transmitter proxy is further con-  
2   figured to generate and send one or more RSVP Path messages on behalf of the server,  
3   the RSVP path messages containing the bandwidth of the stream.

1   52. (NEW) The router of claim 51, wherein the one or more RSVP Path messages in-  
2   clude a sender Tspec object containing the bandwidth of the stream.

1   53. (NEW) The router of claim 44, wherein the RSVP transmitter proxy is further con-  
2   figured to terminate RSVP Reservation (Resv) messages that are sent to the server.

1   54. (NEW) The router of claim 44, wherein the RSVP transmitter proxy is further con-  
2   figured to generate and send one or more RSVP Path Teardown messages on behalf of  
3   the server, to release the reserved resourced allocated to the stream.

1   55. (NEW) The router of claim 44, wherein the characteristics comprise:  
2           a source address;

3 a destination address;  
4 a source port number;  
5 a destination port numbers; and  
6 a transport layer protocol.

1 56. (NEW) The router of claim 44, wherein the packet classification engine is further  
2 configured to interpret the second message according to Session Description Protocol  
3 (SDP).

1 57. (NEW) The router of claim 44, further comprising:  
2 a session manager configured to store the characteristics and the bandwidth of the  
3 stream.

1 58. (NEW) The router of claim 44, wherein the RSVP transmitter proxy is further config-  
2 ured to select a Differentiated Services Codepoint (DSCP) value based on the bandwidth  
3 of the stream.

1 59. (NEW) The router of claim 58, wherein the RSVP transmitter proxy is further config-  
2 ured to load the DSCP value into a RSVP Path message generated and sent on behalf of  
3 the server.

1 60. (NEW) The method of claim 36, wherein the step of reserving resources within a  
2 computer network further comprises:  
3 generating and sending one or more RSVP Path messages on behalf of the server,  
4 the one or more RSVP path messages containing the bandwidth of the stream.

1 61. (NEW) The method of claim 60, wherein the one or more RSVP Path messages in-  
2 clude a sender Tspec object containing the bandwidth of the stream.

- 1 62. (NEW) The method of claim 36, further comprising:  
2 terminating one or more RSVP Reservation (Resv) messages that are sent to the  
3 server.
- 1 63. (NEW) The method of claim 36, further comprising:  
2 generating and sending one or more RSVP Path Teardown messages on behalf of  
3 the server, to release the reserved resourced allocated to the stream.
- 1 64. (NEW) The method of claim 36, wherein the characteristics comprise:  
2 a source address;  
3 a destination address;  
4 a source port number;  
5 a destination port numbers; and  
6 a transport layer protocol.
- 1 65. (NEW) The method of claim 36, further comprising:  
2 interpreting the second message according to Session Description Protocol (SDP).
- 1 66. (NEW) The method of claim 36, further comprising:  
2 storing the characteristics and the bandwidth of the stream in a data structure.
- 1 67. (NEW) The method of claim 36, further comprising:  
2 selecting a Differentiated Services Codepoint (DSCP) value based on the band-  
3 width of the stream.
- 1 68. (NEW) The method of claim 67, further comprising:  
2 loading the DSCP value into a RSVP Path message generated and sent on behalf  
3 of the server.